Introduction

This appendix presents a user guide of the FREEVAL-WZ Software Tool. It focuses on how to use the new planning-level input and output utility that was added to the software as part of this research. Guidance for using the operational analysis features of FREEVAL is provided through a user guide that is part of HCM2010 Volume IV. That user guide is also appended to this report as Appendix B. No changes to the operational side of FREEVAL were performed through this project.

The main flow-chart for a FREEVAL-WZ analysis is shown in Exhibit 46. The user initial has the ability to chose between performing an operational analysis (see Appendix) or a (new) planning-level analysis. For the planning-level analysis, the user first goes to a series of steps to generate a **Facility Template** file. This template contains all geometric and volume information for the freeway facility analysis, but has not yet been processed. It is of critical importance that the user saves this template *prior to commiting to the number of time periods and analysis segments*. After the facility has been processed, changes can no longer be made to the extend of the analysis time-space-domain. More importantly, only a non-processed file in *template mode* can be re-opened in the planning-level interface. Once a file has been processed, it can still be saved, but after closing it will automatically re-open in the operational analysis mode.

After processing the template, the user enters the **Scenario-Specific Mode**, where various outputs are presented through charts, tables, and printable reports. The user can "go to operations" at any point in the analysis, but will not be able to return to planning mode.

A proposed work-flow of a FREEVAL-WZ analysis is as follows:

1. Gather All Input Data
2. Develop **Facility Template** in Planning-Level mode
3. Save Template PRIOR TO going processing facility and going to output!
4. Use Template to develop scenarios (do not change inputs from completed scenario)
5. Process base-year facility in **Scenario-Specific Mode**, calibrate if necessary, copy putput, save results file (*will only be able to re-open as operational FREEVAL*)
6. Re-open template to develop other scenario files, calibrate, copy output, save results file
7. Perform comparison of scenarios

The remaining material in this appendix is presented through a series of screenshots that guide the reader through the various menus of the FREEVAL-WZ planning-level analysis tool. When FREEVAL-WZ is first started, the user may be prompted to "enable macros". This is critical to assure the functionality of the tool. In Office 2010, all FREEVAL-WZ files should always be saved as a macro-enabled file (.xlsm).

Exhibit 47 shows the opening screen of the tool. The user has the choice between selecting "Operation" or "Planning" analysis, where the latter includes the direct work zone functionality. This appendix only addresses "Planning"; for details on "Operation" the reader is referred to Appendix B.